an image sensing unit which senses an object image by converting the object image on the basis of radiation from a radiation source passing through an object into an electric signal; and

a control circuit which stops emission of radiation from the radiation source on the basis of a signal obtained by non-destructively reading the electric signal converted in said image sensing unit to sense the object image by said image sensing unit.

2. (Amended) An apparatus according to claim 1, further comprising a switching circuit which switches reading modes of said image sensing unit, said switching circuit switching the reading mode of said image sensing unit to a non-destructive reading mode in the image sensing operation.

3. (Not Amended) An apparatus according to claim 1, wherein said image sensing unit includes a pixel portion including a photoelectric conversion element and a reading transistor, the photoelectric conversion element of the pixel portion being connected to a control terminal of the reading transistor.

4. (Not Amended) An apparatus according to claim 3, wherein a load is connected to one main electrode terminal of the reading transistor, and the transistor is formed by an amplifier having a voltage amplification factor of substantially 1.

5. (Not Amended) An apparatus according to claim 4, wherein the load is a constant current source or a resistor.

6. (Amended) An apparatus according to claim 3, wherein a switching transistor which selects a pixel portion in a row direction is connected in series with the reading transistor.

7. (Not Amended) An apparatus according to claim 3, wherein a reset transistor is connected in series with the photoelectric conversion element, and the reset transistor is controlled in accordance with a mode switching signal to switch the reading mode to a normal reading mode or a non-destructive reading mode.

8. (Amended) An apparatus according to claim 1, wherein said control circuit comprises a pattern recognizing circuit which performs pattern recognition on the basis of an output from said image sensing unit, a detection circuit which detects a radiation amount on the basis of the pattern recognition result obtained by the pattern recognizing circuit, and a generation circuit which generates a reference value for a most appropriate radiation amount on the basis of the pattern recognition result obtained by the pattern recognizing circuit.

9. (Not Amended) An apparatus according to claim 8, wherein said reference value is generated for a most appropriate radiation amount on the basis of the pattern recognition result obtained by the pattern recognizing circuit.

10. (Not Amended) An apparatus according to claim 8, wherein said control circuit detects a radiation amount by using the detection circuit while performing non-destructive reading from said image sensing unit in the image sensing operation, and stops emission of radiation from the radiation source when the radiation amount becomes not less than the reference value.

11. (Not Amended) An apparatus according to claim 8, wherein said control circuit detects a most appropriate image sensing time while performing non-destructive reading from said image sensing unit in the image sensing operation, and stops emission of radiation from the radiation source when the image sensing time reaches the most appropriate image sensing time.

12. (Amended) An apparatus according to claim 8, wherein said control circuit includes an addition circuit which adds outputs from said image sensing unit.

13. (Not Amended) An apparatus according to claim 12, wherein the addition circuit performs weighted addition based on a reference pattern.

14. (Not Amended) An apparatus according to claim 13, wherein the reference pattern is generated on the basis of the pattern recognition result.

15. (Amended) An apparatus according to claim 1, further comprising a difference circuit which obtains a radiation image sensing output by subtracting an output from